


# Immersive Environments and Media: Language, Literacy, and Culture

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The bottom right corner of the slide features several decorative concentric circles, resembling ripples in water, rendered in a lighter shade of blue than the background.

# Background

- Language makes us unique
- No Child Left Behind
- AAP recommendation:
  - No screen exposure before age 2
  - Limit screen exposure to 2 hours of quality programming during preschool
- Language Deficit Hypothesis: Belief that screen media impedes language development & literacy skills

# Language Development

- Symbol User
- Representational Competence
- Sensitive Period
- Comprehension precedes Utterances

# Language Development

- Resilient Facets
  - 1<sup>st</sup> words
  - Telegraphic sentences
  - Simple sentences, then Complex ones
- Less Resilient Facets
  - Vocabulary
  - Language proficiency
  - Familiarity with letter-sound associations

# Versions of Literacy

- No Child Left Behind
  - Componential focus (e.g., phoneme awareness, vocabulary)
  - Instructed skill at the individual level
  - School setting
  - Teach to the Test
- The New Literacies
  - Holistic approach
  - Learned naturally in a social context
  - Home & community focused
- Screen Literacy

# Early Literacy

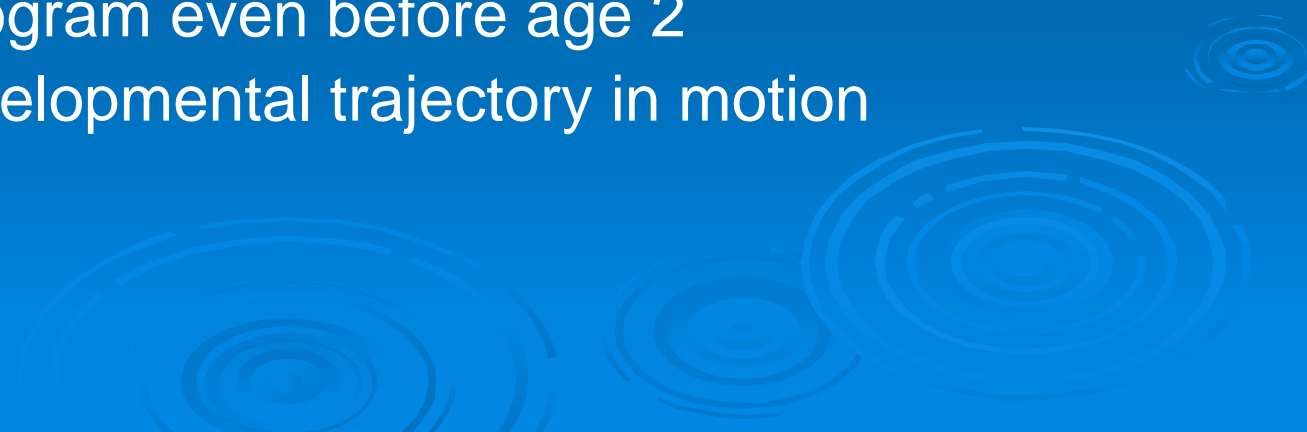
- Skills:
  - Recite the alphabet
  - Recognize letters
  - Identify books by title
  - Handle books appropriately
  - Vocabulary
- Predictors:
  - # of books in household
  - Frequency of book reading
  - Robust finding: Later language development predicted by early childhood vocabulary
  - Phonological awareness → literacy

# Media Theories

- Quality of exposure: Content based
  - Comprehensibility hypothesis
- Quantity of exposure
  - Displacement
- Formal features
  - Media grammar



# Support for Quality of Exposure

- Educational television exposure leads to:
    - Increased vocabulary during the preschool years & school readiness at age 5
    - Book reading skills during 1<sup>st</sup> & 2<sup>nd</sup> grades
    - Letter recognition, reading & spelling during 1<sup>st</sup> grade & better grades in school at age 12
    - Better English scores during adolescence (boys only)
    - Reading books during teen years
    - Effects most documented for Sesame Street
    - Kind of program even before age 2
    - Sets a developmental trajectory in motion
- 



# Quantity of Exposure

- Not much overall support
- Negative effects:
  - As viewing entertainment tv programs increases, 2-7 year olds' reading time decreases
  - Initial introduction of tv in cultures reduces reading acquisition (short-term effect only)
  - One study finds reduced reading skills for tv viewers
- Little if any evidence
  - TV reduces language development or vocabulary

# Vygotsky

- Social Interaction
- Role of Culture in Language Acquisition
- Scaffolds
- Pictures in books as scaffolds for teaching



# Parent-Child Interaction

- Mother-child talk ➡ vocabulary growth, emergent literacy & print-related skills
  - Labels at 12 mos.; then questions & elaborations; responsiveness to child
- Mother verbalizations during book reading
  - Describers
  - Comprehenders ➡ better vocabulary & story comprehension
  - Collaborators
- Intelligent Agents
  - Can screen media duplicate real-life interaction styles?
  - Can screen media supplement real-life interactions?

# Parent-Child Media Interaction

- Screen media can
  - Pull attention away from parent (quantity)
  - Alter style of interaction (quality)
- Similarity across media (books, tv, computers)
  - Labeling objects; linking story events to personal experiences
- Differences across media
  - Parents do other activities while children view
  - Books > tv as a basis for discussions

# Cultural Differences

- Media Culture
  - African American, Latinos & Native American children: TV Culture
  - Caucasian & Asian children: Computer Culture
- Educational TV increases low-income children's (African American, Latino & Caucasian) letter-word skills, vocabulary, and school readiness during preschool (strongest effects for ages 2-3)
- Internet use increases African American literacy scores during adolescence

# Native American Children

- Increases in Literacy:
  - More books in home
  - Parents teach writing/sounds (girls)
  - Use of print media (girls)
  - TV in bedroom (boys)
- Decreases in Literacy:
  - More people in household
  - Videogame play
  - TV in bedroom (girls)

# Screen Literacy

- Formal Features: the Grammar of Media
- Children read screens fairly well by preschool
  - Zooms or fades versus cuts
  - Moderate action
  - Rapid pace later acquisition
  - Sound effects
- Computer action & sound effects increase vocabulary for preschool children with autism
- Studies needed in very early development
  - Video deficit
  - How do children learn to read a screen?

# Conclusion

- Early learning hypothesis from age 2 onward
- What about before age 2?
- What will literacy mean in the 21<sup>st</sup> Century?

